



**UNITED STATES DEPARTMENT OF COMMERCE**  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/329,258 06/10/99 BUECHER

K 076397/0124

EXAMINER

IM22/0214

FOLEY AND LARDNER  
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WASHINGTON DC 20007-5109

FORTUNA, A  
ART UNIT

PAPER NUMBER

1723  
DATE MAILED:

02/14/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/329,258

Applicant(s)

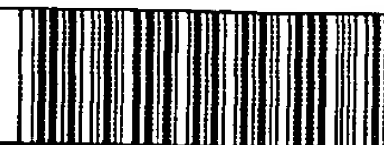
Buecher et al.

Examiner

Ana Fortuna

Group Art Unit

1723



☒ Responsive to communication(s) filed on Jun 10, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-14 is/are pending in the application.

Of the above, claim(s) 7-14 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-6 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3 are rejected under 35 U.S.C. 102(b) as being anticipated by McDermott, Jr. et al. (5,147,541)('541). Reference '541 discloses the spiral wound membrane module having the core and sheath, the sheath is formed from polymer film or membrane which overlap one another, and have been fused to one another in the sealed or overlapped area (abstract, figure 3, column 5, lines 63-68, column 6, lines 1-30). Reference '541 discloses providing a folded membrane film with a spacer between the two membrane films and applying heat and pressure to fuse the membrane and spacer or backing material in the area of fold and also fusing in the area of aligned ends is also disclosed (column 6, lines 31-57). Regarding claim 3, the films disclosed by '541 has at least one functionalized surface, e.g. the film when heat is applied they can fuse to one another.

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***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDermott, Jr. et al (5,147,541) and Fagundes et al. (5,073,263) and further in view of Mallouk et al (5,082,472). Reference '541 fails to disclose the membrane as coextruded film and the particular melting points. Melting properties between the membrane layer and spacer is required by '541 for the bonding with heat and pressure, to bond in the folded area and at the edges. Reference '263 is cumulative to show the spiral wound membrane module having spacers are over wrap and by pass screen and the screen fused to the outer wrap, and fused to itself in the overlap area (column 3, lines 1-68, column 4, lines 47). Therefore, it would have been obvious to one skilled in the pertinent art at the time the invention was made to provide an spiral wound membrane module with films fused to one another at their edges or in the area of fold or fused to itself by

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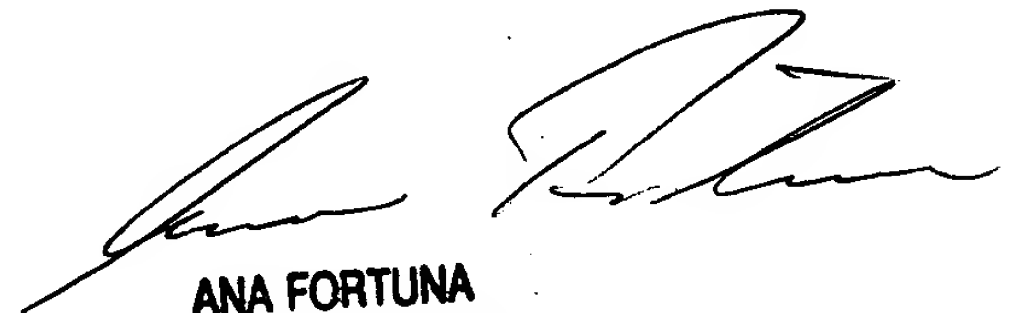
conventional heat or heat and pressure treatment. Using the fusing films as membranes or as wrap or overpass material is conventional as discussed in the present prior art discussed. Reference '472 further disclosed composite coextruded films containing two coextrude layers made from PTFE, and having fused layer capable of being formed in spiral wound configuration for separation purpose (abstract, column 2, lines 58-68, column 3, lines 1-9, column 9, lines 3-24, column 11, lines 19-28, column 11, lines 63-68, column 12, lines 1-5). Therefore, it would have been obvious to one skilled in the pertinent art to use the composite of '472 in a spiral configuration, and further form the spiral as suggested by '541, since '541 suggest membranes of polytetrafluoroethylene (PTFE) material. The specific melting points are not disclosed, but they are suggested by '541, by suggesting polypropylene and polyester as backing material, and by suggesting PTFE to different polymers forming distinct coextruded films (column 11, lines 63-68, column 12, lines 1-5).

6. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are unclear as to whether the film represent the membrane or a wrapping layer and overwrap or screen on the wrap material.

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the film referred in the claims as element 910) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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9. References cited in form 982 have considered as pertinent to Applicant disclosure.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Fortuna whose telephone number is (703) 308-3857.



ANA FORTUNA  
PRIMARY EXAMINER  
GROUP 1300

Ana Fortuna

February 12, 2001